

Serial No. 10/719,583

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IN THE CLAIMS:

The following listing of claims will replace all prior versions and listings of claims in the application.

1. (Currently Amended) A hemming machine for joining an inner sheet metal panel with an outer sheet metal panel comprising:

a hemming tool apparatus arranged to mechanically fold a portion of said outer sheet metal panel over a portion of the inner sheet metal panel; and

containing an electromagnetic coil positioned relative to the hemming apparatus and arranged to selectively apply an additional force to the folded portion of the outer sheet metal panel, wherein the combination of mechanically folding and applying the additional force to electromagnetically crimps, welds, or crimps and welds said outer sheet metal panel to said inner sheet metal panel.

2. (Currently Amended) The hemming machine of claim 1, further comprising a backing die positioned outside said inner ~~metallie-sheet~~ metal panel and said outer ~~metallie-sheet~~ metal panel opposite said electromagnetic coil.

3. (Currently Amended) The hemming machine of claim 1, where said inner sheet metal panel and said outer sheet metal panel are composed of identical metallic materials.

4. (Currently Amended) The hemming machine of claim 1, where said inner sheet metal panel and said outer sheet metal panel are composed of dissimilar metallic materials.

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5. (Currently Amended) The hemming machine of claim 1, where said inner sheet metal panel and said outer sheet metal panel are composed of identical metallic materials chosen from the group consisting of: steel, magnesium, aluminum, alloys of magnesium, and alloys of aluminum.

6. (Currently Amended) The hemming machine of claim 1, where said inner sheet metal panel and said outer sheet metal panel are composed of dissimilar metallic materials chosen from the group consisting of: steel, magnesium, aluminum, alloys of magnesium, and alloys of aluminum.

7. (Currently Amended) A method of electromagnetically hemming and inner sheet of metallic material with an outer sheet of metallic material comprising the steps of:

mechanically hemming-folding said inner sheet with a portion of said outer sheet over a portion of said inner sheet;

positioning an electromagnetic coil adjacent relative to said hemmed inner sheet and outer sheet;

selectively applying an additional force to the folded portion of said outer sheet by pulsing current through said electromagnetic coil, wherein the combination of the mechanical folding and applying the additional force ~~crimping~~ crimps, ~~welding~~ welds, or ~~crimping crimps and welding welds~~ contacting surfaces of said inner sheet and to said outer sheet by pulsing current through said coil.

8. (Currently Amended) The method of claim 7, further comprising the step of: positioning a backing die outside said inner ~~metallie~~ sheet and said outer ~~metallie~~ sheet

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opposite to said electromagnetic coil prior to said applying additional force said
crimping, welding, or crimping and welding step.

9. (Original) The method of claim 7, where said inner sheet and said outer sheet are composed of identical metallic materials.

10. (Original) The method of claim 7, where said inner sheet and said outer sheet are composed of dissimilar metallic materials.

11. (Original) The method of claim 7, where said inner sheet and said outer sheet are composed of identical metallic materials chosen from the group consisting of: steel, magnesium, aluminum, alloys of magnesium, and alloys of aluminum.

12. (Original) The method of claim 7, where said inner sheet and said outer sheet are composed of dissimilar metallic materials chosen from the group consisting of: steel, magnesium, aluminum, alloys of magnesium, and alloys of aluminum.